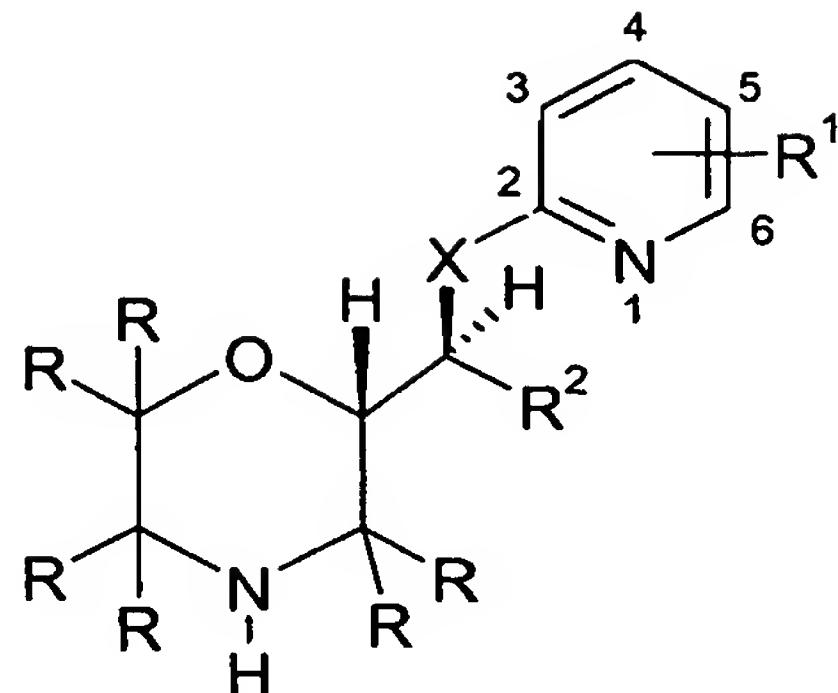


CLAIMS

1. A compound of formula (I)



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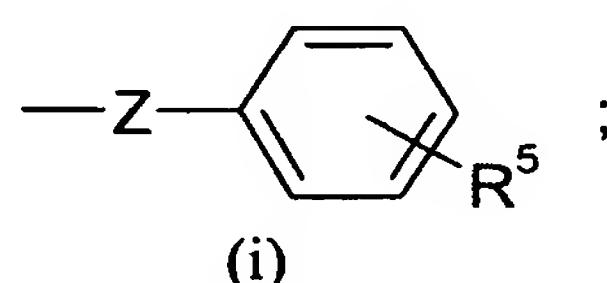
(I)

wherein

-X- is -S- or -O-;

each R is independently selected from H or C<sub>1</sub>-C<sub>4</sub> alkyl;

R<sup>1</sup> is H, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, halo, cyano, trifluoromethyl, trifluoromethoxy, -NR<sup>3</sup>R<sup>4</sup>, -CONR<sup>3</sup>R<sup>4</sup>, -COOR<sup>3</sup> or a group of the formula (i)



(i)

R<sup>2</sup> is C<sub>1</sub>-C<sub>4</sub> alkyl, phenyl or phenyl substituted with 1, 2 or 3 substituents each independently selected from C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, nitro, hydroxy, cyano, halo, trifluoromethyl, trifluoromethoxy, benzyl, benzyloxy, -NR<sup>6</sup>R<sup>7</sup>, -CONR<sup>6</sup>R<sup>7</sup>, COOR<sup>6</sup>, -SO<sub>2</sub>NR<sup>6</sup>R<sup>7</sup> and -SO<sub>2</sub>R<sup>6</sup>;

R<sup>5</sup> is selected from H, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, carboxy, nitro, hydroxy, cyano, halo, trifluoromethyl, trifluoromethoxy, benzyl, benzyloxy, -NR<sup>8</sup>R<sup>9</sup>, -CONR<sup>8</sup>R<sup>9</sup>, -SO<sub>2</sub>NR<sup>8</sup>R<sup>9</sup> and -SO<sub>2</sub>R<sup>8</sup>;

R<sup>3</sup>, R<sup>4</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup> and R<sup>9</sup> are each independently selected from H or C<sub>1</sub>-C<sub>4</sub> alkyl; and

-Z- is a bond, -CH<sub>2</sub>- or -O-;

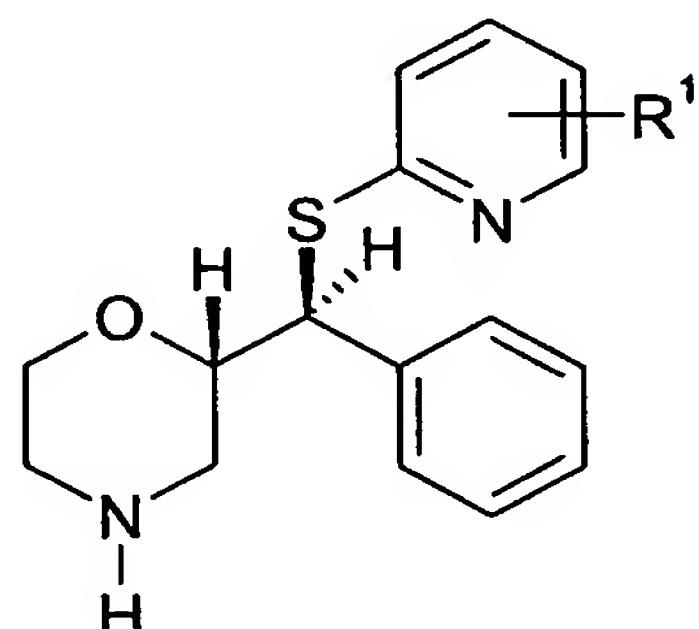
or a pharmaceutically acceptable salt thereof.

2. A compound as claimed in claim 1, wherein -X- is -S-.

- 5 3. A compound as claimed in either one of claims 1 or 2, wherein R² is phenyl.

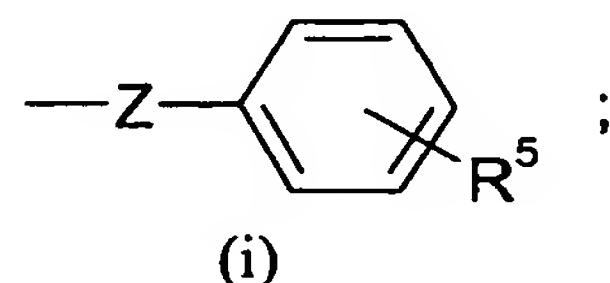
4. A compound as claimed in any one of claims 1 to 3, wherein all R groups are hydrogen.

- 10 5. A compound as claimed in claim 1, represented by the formula (II)



(II)

wherein R¹ is H, C₁-C₄ alkyl, C₁-C₄ alkoxy, halo, cyano, trifluoromethyl, trifluoromethoxy, -NR³R⁴, -CONR³R⁴, -COOR³ or a group of the formula (i)



(i)

R⁵ is selected from H, C₁-C₄ alkyl, C₁-C₄ alkoxy, carboxy, nitro, hydroxy, cyano, halo, trifluoromethyl, trifluoromethoxy, benzyl, benzyloxy, -NR⁸R⁹, -CONR⁸R⁹, -SO₂NR⁸R⁹ and -SO₂R⁸; R³, R⁴, R⁸ and R⁹ are each independently selected from H or C₁-C₄ alkyl; -Z- is a bond, -CH₂-, or -O-; or a pharmaceutically acceptable salt thereof.

6. A compound as claimed in any one of claims 1 to 5, wherein the substituent R¹ is in the three position of the pyridine ring as numbered in formula (I) above.
- 5
7. A compound as claimed in any one of claims 1 to 6, wherein R¹ is H, C₁-C₄ alkyl, halo, cyano, -CONR³R⁴, trifluoromethyl or a group of the formula (i).
- 10
8. A compound as claimed in any one of claims 1 to 7, wherein R¹ is -CONR³R⁴ and R³ and R⁴ are both H.
9. A compound as claimed in any one of claims 1 to 7, wherein R¹ is a group of the formula (i), -Z- is a bond, and R⁵ is H or halo.
- 15
10. A compound as claimed in any one of claims 1 to 7, wherein R¹ is a group of the formula (i), -Z- is -CH₂- or -O-, and R⁵ is H.
11. A compound as claimed in any one of claims 1 to 5, wherein the substituent R¹ is in the five position of the pyridine ring as numbered in formula (I) above.
- 20
12. A compound as claimed in claim 11, wherein the substituent R¹ is selected from bromo, chloro or iodo.
- 25
13. A pharmaceutical composition comprising a compound as claimed in any one of claims 1 to 12 or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable diluent, excipient or carrier.

14. A compound as claimed in any one of claims 1 to 12 or a pharmaceutically acceptable salt thereof, for use in therapy.
- 5 15. Use of a compound as claimed in any one of claims 1 to 12 or a pharmaceutically acceptable salt thereof, for the manufacture of a medicament for treating a disorder associated with norepinephrine dysfunction in mammals.
- 10 16. Use as claimed in claim 15 or method as claimed in Claim 18 wherein the disorder is selected from the group consisting of an addictive disorder and withdrawal syndrome, an adjustment disorder (including depressed mood, anxiety, mixed anxiety and depressed mood, disturbance of conduct, and mixed disturbance of conduct and mood), an age-associated learning and mental disorder (including Alzheimer's disease), alcohol addiction, anorexia nervosa, apathy, an attention-deficit disorder (ADD) due to general medical conditions, attention-deficit hyperactivity disorder (ADHD) including the predominantly inattentive type of ADHD and the predominantly hyperactive-impulsive type of ADHD, bipolar disorder, bulimia nervosa, chronic fatigue syndrome, chronic or acute stress, cognitive disorders including mild cognitive impairment (MCI) and cognitive impairment associated with schizophrenia (CIAS), conduct disorder, cyclothymic disorder, dementia of the Alzheimers type (DAT), depression (including adolescent depression and minor depression), dysthymic disorder, emotional dysregulation, fibromyalgia and other somatoform disorders (including somatization disorder, conversion disorder, pain disorder, hypochondriasis, body dysmorphic disorder, undifferentiated somatoform disorder, and somatoform NOS), generalized anxiety disorder, hypotensive states including orthostatic hypotension, incontinence (i.e., stress incontinence, genuine stress incontinence, and mixed incontinence), an inhalation disorder, an intoxication disorder, mania, migraine headaches, neuropathic pain,
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- nicotine addiction, obesity (i.e., reducing the weight of obese or overweight patients), obsessive compulsive disorders and related spectrum disorders, oppositional defiant disorder, pain including chronic pain, neuropathic pain and antinociceptive pain, panic disorder, peripheral neuropathy, post-traumatic stress disorder, premenstrual dysphoric disorder (i.e., premenstrual syndrome and late luteal phase dysphoric disorder), psoriasis, psychoactive substance use disorders, a psychotic disorder (including schizophrenia, schizoaffective and schizophreniform disorders), seasonal affective disorder, a sleep disorder (such as narcolepsy and enuresis), social phobia (including social anxiety disorder), a specific developmental disorder, selective serotonin reuptake inhibition (SSRI) "poop out" syndrome (i.e., wherein a patient who fails to maintain a satisfactory response to SSRI therapy after an initial period of satisfactory response), TIC disorders (e.g., Tourette's Disease), tobacco addiction and vascular dementia.
17. A method for selectively inhibiting the reuptake of norepinephrine in mammals, comprising administering to a patient in need thereof an effective amount of a compound as claimed in any one of claims 1 to 12, or a pharmaceutically acceptable salt thereof.
18. A method for treating disorders associated with norepinephrine dysfunction in mammals, comprising administering to a patient in need thereof an effective amount of a compound as claimed in any one of claims 1 to 12, or a pharmaceutically acceptable salt thereof.